

Southwest Washington Health District

Preserving, Promoting and Protecting Health in Clark and Skamania Counties

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Fact Sheet on Meningococcal Disease

What is meningitis?

Meningitis is an infection of the fluid of a person's spinal cord and the fluid that surrounds the brain. People sometimes refer to it as spinal meningitis. Meningitis usually is caused by a viral or bacterial infection. Knowing whether meningitis is caused by a virus or bacterium is important because the severity of illness and the treatment differ. Viral meningitis is generally less severe and resolves without specific treatment, while bacterial meningitis can be quite severe and may result in brain damage, hearing loss, learning disability and even death.

For bacterial meningitis, it is also important to know which type of bacteria is causing the meningitis because antibiotics can prevent some types from spreading and infecting other people. Before the 1990s, Haemophilus influenzae type b (Hib) was the leading cause of bacterial meningitis, but new vaccines being given to all children as part of their routine immunizations have reduced the occurrence of invasive disease due to Hib. Today, Streptococcus pneumoniae and Neisseria meningitidis are the leading causes of bacterial meningitis.

How common is meningococcal disease?

In Clark County in 1999, we had 11 cases of meningococcal disease at a rate of 3.3 per 100,000 and no deaths. In 2000 we had 7 cases at a rate of 2.0 per 100,000 and 3 deaths. In 2001 we have had 14 cases and 2 deaths.

What causes meningococcal disease?

A bacteria called *Neisseria meningitidis*. Infection with this bacteria may lead to "poisoning of the blood", meningitis (inflammation of the brain and spinal cord), and can lead to death.

How is it spread?

By direct contact, with respiratory droplets from nose and throat of infected persons. You have to be in very close contact with an infected person to be at increased risk of contracting the organism. For example, people who have direct mouth or nose contact, who actually share food or beverages with each other, or sharing of cigarettes and straws.

What are the signs and symptoms of meningitis?

High fever, headache, and stiff neck are common symptoms of meningitis in anyone over the age of two years. These symptoms can develop over several hours, or they may take one to two days. Other symptoms may include nausea, vomiting, discomfort looking into bright lights, confusion, and sleepiness.

In newborns and small infants, the classic symptoms of fever, headache, and neck stiffness may be absent or difficult to detect, and the infant may only appear slow or inactive, or be irritable, have vomiting, or be feeding poorly. As the disease progresses, patients of any age may develop a red/pinpoint or purple/blotchy (like a rug burn) rash and may have seizures.

How is meningitis diagnosed?

Early diagnosis and treatment are very important. If symptoms occur, the patient should see a doctor immediately. The diagnosis is usually made by growing bacteria from a sample of spinal fluid. The spinal fluid is obtained by performing a spinal tap, in which a needle is inserted into an area in the lower back where fluid in the spinal canal is readily accessible. Identification of the type of bacteria responsible is important for selection of correct antibiotics.

Can meningitis be treated?

Bacterial meningitis can be treated with a number of effective antibiotics. It is important, however, that treatment be started early in the course of the disease. Appropriate antibiotic treatment of most common types of bacterial meningitis should reduce the risk of dying from meningitis to below 15 percent, although the risk is higher among the elderly. Even with the best medical care some people may still die from this disease.

Who is at risk getting the disease?

Meningococcal disease is most common in children, but anyone at any age can get it. Persons who have had very close contact with a person who develops meningococcal disease have an increased risk of contracting the disease.

Smoking increases the risk of becoming sick with meningococcal disease and smoking parents increase the risk to their children of becoming ill.

People in the same household or day-care center, or anyone with direct contact with a patient's oral secretions (such as a boyfriend or girlfriend) would be considered at increased risk of acquiring the infection.

What can be done to prevent meningococcal disease?

Close contacts of persons with meningococcal disease can receive an oral antibiotic, which decreases the risk of subsequent development of the disease. Some types of meningococcal disease can be prevented by vaccination; however the specific organism causing the majority of cases in Clark County and Northwest Oregon is not prevented by vaccine.

Even persons who are vaccinated with the meningococcal vaccine can become sick with meningococcal disease. Everyone should know the signs and symptoms and seek prompt medical attention if they experience them.

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